

**REMARKS OF COMMISSIONER GEOFFREY STARKS
AT THE 2023 CLEAN ENERGY TRANSITION CONFERENCE
NATIONAL PRESS CLUB, WASHINGTON, DC**

Thank you, Deidre, for the introduction and thank you Tech for Climate Action for having me here today.

It may not always be as smooth as we want it to be. And it may not always be quick as we need it to be. But the clean energy transition is happening—in fact, it's already unfolding before our eyes.

With that change lies opportunity. I want everyone in the United States to benefit, and infrastructure will be a key part of that story. If you think of it this way, every new revolution in technology has driven transformative changes in our infrastructure, some of it unforeseen. Watermills and steam power fueled a first industrial revolution—and the early construction of navigable canals. Steam and coal led to massive railway networks—and the new telegraph lines laid on top of them. Steel, oil, and gas led to the ubiquity of the automobile—and the roadways we use today. More recently, we've seen semiconductors and chips spawn a new era of mass connectivity—and the rise of broadband internet, the infrastructure of the 21st century.

What new technologies, and what new infrastructure, will support and spin out from the clean energy revolution? The possibilities are many, but here are a few that I'm focused on.

The first is perhaps the most obvious: an adaptable electrical grid that embraces distributed points of generation, two-way communications, and precision control. Smart grids show a clear path to tap into more renewable sources, strengthen our resilience in the wake of more frequent and more severe natural disasters, squeeze power routing efficiencies, and lower consumer costs on their utility bills. We've been exploring these technologies for decades in this country. What's around the corner? I'm hoping for a new era of scale and execution.

I'm also thinking about advancements in surface transportation. Smart cities and intelligent infrastructure can make our roads safer and more accessible—and also more efficient. Less congestion, less time spent idling.

Just about everywhere else, what I envision is the deployment of new systems that find opportunities for efficiency wherever they can get it. Take heavy industries, for example. We know that many industrial processes are notoriously hard to decarbonize. So one of the best ways for manufacturers to make progress is to invest in doing more with less. Tech-driven systems can help producers drive more output with less raw material, less downtime, less inventory, and less energy. Agriculture offers a similar example. There, too, one of the best ways for farmers to compete and reduce emissions at the same time is to leverage technology to optimize their operations.

By the way, so many of these efforts will rely on using sensors and imaging to detect just about everything, and then parsing that data to make smarter decisions. Whether we're

evaluating soil conditions on the field or the vibration of machines on the factory floor, AI could accelerate our advancement to cleaner operations.

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Everyone in government has to work together if we want to seize these opportunities for American workers, consumers, and innovators. At the FCC, we're hard at work ensuring that our communications infrastructure lays the right foundation. Whether you want to plug-in at a remote charging station, deploy a smart combine harvester, wire-up a plant or factory, or build cars that cooperate to reduce acceleration and braking, we want you to have the right mix of connectivity when and where you need it, and with the performance characteristics that your application requires.

How are we achieving that? Here are a few ways.

We're expanding America's fiber backbone. Just last month, we authorized \$18.2 billion to bring high-speed fixed broadband to more than [700,000 unserved](#) rural locations.

We're also helping every community in America migrate to mobile 5G by increasing access to spectrum, accelerating deployment, and supporting rural buildout through initiatives like our 5G Fund. And let me tell you, this is about much more than gaming and movies. From its logical architecture to the way it can pack multiple signals on the same channel, next-generation wireless has fundamentally changed our ability to support applications that need fast, low-latency, and dependable mobile connectivity. That describes many of the pioneering applications we've been discussing here today, from the grid to our roads to the production process.

As we think about wireless, we're also expanding low-barrier access to high bandwidths through unlicensed, lightly licensed, and shared access spectrum models. That could make it easier for companies to experiment with advanced manufacturing systems that depend on private wireless connectivity.

We're also making it easier to launch satellite networks—and writing a new playbook for systems that connect directly to a smartphone or cellular modem. Satellites can keep the connection going through cellular dead zones, which include many parts of America's farms and roads, as you might imagine. At the same time, small sats are increasing access to low-cost earth observation and imaging, which can facilitate a better understanding of our changing climate and even help us verify industry carbon commitments.

In other proceedings, we've been exploring ways to expand offshore wireless so facilities like wind farms benefit from connected technologies. And we continue to create opportunities for innovative cellular vehicle-to-everything technologies that can advance intelligent transportation.

The best part about collaboration in government is that the cross-pollination works both ways. Recently, I voted to propose the creation of a U.S. Cyber Trust Mark, a consumer product

labeling program that would help everyday Americans choose safer connected devices that are less vulnerable to cyberattacks. The core concept for that approach comes from Energy Star, the energy efficiency labeling program. With the clean energy transition as with cybersecurity, our vision for success is larger than any one agency. Success here is measured by our overall impact in reaching Americans everywhere.

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Let me wrap up with two quick suggestions.

First, many of the technologies I've discussed today illustrate how connected technologies can help the world decarbonize. But as we focus on enabling others to reduce emissions, we should also find ways to reduce our carbon footprint ourselves. In 2019, I worked with a major telecom carrier on a first-of-its-kind commitment to make its 5G operations and related supply chain carbon neutral by 2025. Now, every major carrier – and so many companies in the tech and telecom ecosystem – are committed to reaching net zero at least in their Scope 1 and Scope 2 emissions. Industry-led efforts are great, but they shouldn't remain stagnant. In my mind, next steps involve looking beyond offsets—and finding more opportunities to invest in new efficiencies in your own operations themselves.

Second, see what you can do to make more of the future happen today. Many of the innovative applications we've discussed will be feasible to deploy well before they reach the mainstream. But that doesn't mean "wait-and-see" is the right approach. While the road may be bumpy, early adopters can jumpstart new markets and reach pole position while their competitors lag behind. As I said at the beginning of my remarks, there's enormous opportunity in change, and change is around the corner. Think of this as your moment in history, and not that of another company—or another country—that finds a way to do things better first.

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Thank you for your time. As I like to remind people, I'm an open-door commissioner, and my office is always eager to learn about new ideas. So if there are ways the FCC can be helpful to your role in the clean energy transition, please don't hesitate to contact my team.